

REMARKS

Claims 1-8 are pending in this application. Claims 3-5 stand withdrawn. By this Amendment, claims 1 and 3 are amended and claims 7 and 8 are added. No new matter is added.

I. Personal Interview

The courtesies extended to Applicants' representative by Examiner Van Pelt at the interview held September 9, 2004, are appreciated. The reasons presented at the interview as warranting favorable action are incorporated into the remarks below and constitute Applicants' record of the interview.

II. Election/Restriction

Applicants request that upon allowance of either generic claim 1 or claim 2, withdrawn claims 3-5 be rejoined and allowed.

III. Claim Rejections Under 35 U.S.C. §112

Claims 1, 2 and 6 are rejected under 35 U.S.C. §112, first paragraph. The rejection is respectfully traversed.

The Office Action alleges that it is unclear as to how "the projections directly face each other to allow confronting side surfaces to come into contact with each other." Applicants submit that the recited subject matter is fully supported in the specification. For example, in the Summary of the Invention at page 6, line 24-page 7, line 3, the specification recites, "Further preferably, confronting side surfaces of any adjacent pieces of the divided poly-V belt come in contact with each other" and discusses the effect. Thus, as discussed during the personal interview, when "one of the adjacent pieces of the divided poly-V belt is about to flap, the other of the adjacent pieces of the divided poly-V belts serves to restrict flapping movement of the one of adjacent pieces of the divided poly-V belt since the confronting side surfaces thereof come in contact with each other." Thus, as shown in Fig. 6

representing the elected species, the confronting side surfaces of the divided poly-V belt are allowed to come into contact with each other due to the side surfaces of the projections directly facing each other. Although there is a gap between the respective confronting side surfaces of the divided poly-V belts 1a and 1b, as shown in the first embodiment in Figs. 1-3, as well as in Fig. 6 representing the elected species, the confronting side surfaces may come in contact with each other as shown in Fig. 7 (see page 13, lines 12-15). The divided poly-V belts 1a and 1b operate to restrict mutual belt movement so that belt flapping and noises are restricted resulting in a longer lifetime of the belt. This benefit is achieved through mutual frictional contact of the confronting side surfaces of the divided poly-V belts 1a and 1b (see p. 13, lines 16-21 of the specification).

IV. Claim Rejections Under 35 U.S.C. §103

Claims 1, 2 and 6 are rejected under 35 U.S.C. §103(a) as unpatentable over U.S. Patent 5,026,327 to White Jr. et al. (hereinafter "White") in view of JP 10-2402 to Sato. The rejection is respectfully traversed.

Applicants submit that neither White nor Sato, whether considered alone or in combination, disclose or suggest each and every feature recited in the rejected claims. For example, the combination of references fails to disclose or suggest an engine auxiliary driving equipment for transmitting an engine driving force from a crank pulley fixed to an engine crankshaft to a plurality of engine auxiliary units, one of which is an alternator for a vehicle, comprising *inter alia* ... a poly-V belt having a top surface and a plurality of projections extending in parallel in a longitudinal direction ... wherein the poly-V belt is composed of a plurality of pieces substantially divided in an axial direction of the driven poly-V pulley so that each piece of the poly-V belt has at least two and less than six of said projections, each of said walls is lower than said top surface and a portion of the side surfaces of the projections

that directly face each other are disposed above said walls to allow confronting side surfaces of adjacent pieces of the belt to come into contact with each other.

White discloses an endless power transmission belt and a rotatable pulley means for such a belt. As admitted in the Office Action, White fails to disclose a poly-V pulley having at least 6 grooves extending in a circumferential direction and a plurality of walls between the grooves. As further admitted in the Office Action, White fails to disclose a poly-V belt composed of a plurality of pieces substantially divided in an axial direction of the poly-V pulley so that each piece of the poly-V belt has more than 2 and less than 6 projections and each of the walls is lower than a top surface so that the side surfaces of the projections directly face each other to allow confronting side surfaces of adjacent pieces to come into contact with each other, as recited in an unamended claim 1.

The Office Action goes on to admit that White also fails to disclose that the respective pieces of the poly-V belts are wound in parallel and the another driven poly-V pulley to a position perpendicular to the axial direction thereof so that the engine driving force is transmitted from the crank pulley, via the respective pieces of the poly-V belts, not only to the alternator but also to the another of the engine auxiliary pieces, as recited in unamended claim 2.

The Office Action further admits that White fails to disclose an engine auxiliary unit driving equipment according to claim 1, wherein the respective weights per unit length of the pieces of the poly-V belts are different, as recited in unamended claim 6.

To overcome all of these admitted deficiencies, the Office Action combines the English language Abstract of Sato and alleges that it would have been obvious to one of ordinary skill in the art at the time the invention was made in view of the teachings of Sato to modify the apparatus of White so as to provide a plurality of pieces of poly-V belt to improve belt life.

When an English language Abstract of a foreign language reference is used to support a rejection, the evidence relied upon is the facts contained in the Abstract, not additional facts that may be contained in the underlying full text document (see MPEP §706.02). If the document being relied on is in a language other than English and the Examiner seeks to rely on that document, a translation must be obtained so that the record is clear as to the precise facts Examiner is relying upon in support of the rejection. The record must also be clear as to whether the Examiner is relying upon the Abstract or the full text of document to support a rejection. It is not uncommon that the full text document will include teachings away from the invention that will preclude an obviousness rejection under 35 U.S.C. §103, when the Abstract alone appears to support the rejection (MPEP §706.02). Thus, Applicants again request that before any further consideration of the Sato reference, the PTO should provide a full translation of this Japanese reference as requested in the October 30, 2003, Amendment After Final Rejection and provide a clear record as to the precise facts relied upon in the reference in support of the rejection.

However, as best understood from the English language Abstract of Sato, the reference discloses a pulley 14 that has a partitioning wall 13 in which an uneven part 23 is formed. When a belt is erroneously hung on the pulley an abnormal noise is generated between the partitioning wall 13 and the belt.

Thus, as discussed during the interview, the problem being addressed in Sato is to "easily and certainly detect the erroneous hanging of a belt with out accompanying the increase of the whole length and weight of an engine, by arranging around the periphery of a partitioning wall, a plurality of uneven parts which are recessed and projected in the radial direction of the pulley." In contrast, White addresses a problem of belt noise reduction by forming a belt having inclined angles between the side edges of each V rib of a belt. Thus, White addresses the problem of noise reduction in a belt while Sato specifically provides for

creating abnormal noises in a belt. Therefore, the teachings of White and Sato are contrary to one another. In other words, Sato teaches directly away from the invention of White.

Accordingly, there is no suggestion in the references to combine the references, nor would one of ordinary skill in the art be motivated to make such a combination when one reference teaches creating belt noise and the other teaches reducing belt noise.

Furthermore, even were such a combination made, the resulting combination would not disclose or suggest a poly-V belt composed of a plurality of pieces substantially divided in axial direction . . . each of said walls is lower than said top surface and a portion of the side surfaces of the projections that directly face each other are disposed above said walls to allow confronting side surfaces of adjacent pieces of the belt to come into contact with each other, as recited in the amended claims as discussed during the personal interview. For example, White merely discloses an endless power transmission belt composed of a single unitary piece. Thus, White does not disclose a plurality of pieces.

As can best be discerned from the Abstract of Sato, there is no disclosure or suggestion of a poly-V belt composed of a plurality of pieces substantially divided in an axial direction. Rather, Sato appears to disclose two separate belts 15 and 16 which are disposed on opposite sides of the partitioning wall 13 of the pulley 14. Thus, the belts 15 and 16 do not have confronting side surfaces that come into contact with each other due to the partitioning wall. Furthermore, in Sato, the belts 15 and 16 do not have a portion of side surfaces of the projections that directly face other. Rather, the projects shown in the Figs. of Sato sit entirely within the grooves of the pulley. Accordingly, the combination of references fails to disclose or suggest each and every feature recited in the rejected claims. Therefore, Applicants request the rejection of claims 1, 2 and 6 under 35 U.S.C. §103(a) be withdrawn.

V. New Claims

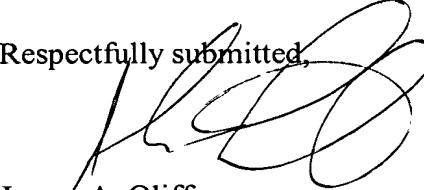
Applicants submit that the combination of references fails to disclose or suggest additional features recited in new claims 7 and 8. For example, neither White nor Sato, whether considered alone or in combination, disclose or suggest wherein the number of projections on each of the plurality of pieces of the poly-V belt are different from each other. As discussed above, and admitted in the Office Action, White fails to disclose such a poly-V belt composed of a plurality of pieces. Additionally, as clearly shown in the figures of Sato, each V rib belt 15 and 16 has the same number of projections. Similarly, neither Sato or White disclose the additional features of claim 8. White does not even contemplate the idea of altering or shifting the natural frequency of the belt, as recited in the claim, to restrict belt flapping. Thus, Applicants submit that new claims 7 and 8 distinguish over the applied references.

VI. Conclusion

In view of the foregoing amendments and remarks, Applicants respectfully submit that this application is in condition for allowance. Favorable consideration and prompt allowance of claims 1-8 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,


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